

Notice No.2

for the Code for Lifting Appliances in a Marine Environment July 2019

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note for the corrigenda items paragraphs, Tables and Figures are not shown in their entirety.

Issue date: June 2020

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Chapter 1, Section 4 (New)	1 July 2020	N/A
Chapter 12, Section 1	1 July 2020	NA

Chapter 1

General

■ Section 4

Quality assurance scheme for components of lifting appliance systems

4.1 General

4.1.1 Quality assurance scheme for components of lifting appliance systems (QAL) is an alternative approach for product assurance to direct survey and certification of lifting appliance components and equipment required by the Code. Under the QAL LR will consider the extent to which manufacturing processes and control procedures ensure conformity of that component with the Code.

4.1.2 This QAL is applicable to items manufactured under closely controlled conditions. The products for which the QAL is applicable are provided in LR's *ShipRight Procedure Approval of a Manufacturer According to the Quality Assurance of Engineering Systems* scoping all QA scheme services under the LR Quality Assurance Engineering Services (QAES). Examples for such components are provided in the following:

- (a) Items of loose gear, such as hooks, hook blocks, spreaders, lifting beams, shackles and swivels (see [Ch 8 Fittings, Loose Gear and Ropes](#) as applicable).
- (b) Items of machinery, such as winches, bearings and hydraulic cylinders (see [Ch 9 Machinery](#) as applicable).
- (c) Steel wire ropes (see [Ch 8 Fittings, Loose Gear and Ropes](#) as applicable).
- (d) Electrotechnical components (see [Ch 10 Electrotechnical System](#) and relevant Parts of applicable releases of LR's [Rules and Regulations for the Classification of Ships, July 2019](#)).

4.1.3 The applicability of the QAL is to be agreed with LR in each case.

4.1.4 The QAL does not reduce or eliminate the requirements for design, survey, fabrication, marking and testing to be adhered to in accordance with the Code. The requirement for plan appraisal of individual components as listed in [Ch 1, 4.1 General 4.1.2](#) remains applicable.

4.1.6 In addition to the QAL product certificates issued by the manufacturer, the required statutory certificates (e.g. LA.3 and LA.4) will still be issued by LR based on the issued QAL product certificates.

4.2 Definitions

4.2.1 The following definitions apply in the context of this Section.

4.2.2 QAL audit

An audit, conducted by LR at the manufacturer's, or their supplier's or sub-contractor's, works, of their products and/or processes, which may include direct survey, to provide confidence that products are manufactured, tested and inspected in accordance with the requirements of the Code. Periodicity of surveillance audits is as agreed in the QAL Certification Schedule.

4.2.3 Assessment

A review, conducted by LR, of evidence gained through several sources, such as documentation, submitted by the manufacturer, supplier or subcontractor, and regular QAL audit reports, to verify that products are manufactured, tested and inspected in accordance with the Code.

4.2.4 Manufacturer

A company who contracts to supply components or equipment products to a customer or user and applies for approval under the QAL.

4.2.5 Supplier

A company who contracts to supply materials, components or equipment products to the manufacturer applying for approval under the QAL.

4.2.6 Sub-contractor

A company who contracts to deliver a service to a supplier or manufacturer under the agreed QAL arrangements.

4.3 QAL arrangements

4.3.1 A manufacturer may apply to be approved under the QAL where the following requirements are met:

- (a) The manufacturer has a quality management system which has been certified as meeting the requirements of ISO 9001 *Quality Management*, or an industry-specific equivalent standard, by a certification body accredited by a member of the International Accreditation Forum and recognised by LR.
- (b) The manufacturer has processes in place suitable for the products to be certified under the QAL.
- (c) The manufacturer has a satisfactory and documented history of quality performance in the supply of products for which certification under the QAL is requested.

4.3.2 The scope and arrangements for survey, identification and certification of products covered by the QAL are to be agreed with LR and will be detailed in a Scheme Certification Schedule. The survey will be based on a technical process audit approach, focussing on product realisation. A direct survey may also be used where it is considered appropriate to do so.

4.3.3 The QAL procedures given in the applicable LR *ShipRight Procedure Approval of a Manufacturer According to the Quality Assurance of Engineering Systems* are to be complied with.

4.3.4 Where LR is satisfied that the manufacturer meets all the requirements of the QAL, and that it is appropriate for the products being manufactured, LR will issue the manufacturer with a QAL Certificate which will list products covered under QA scheme application.

4.3.5 LR reserves the right to carry out unscheduled audits, with appropriate notice, at the manufacturer's works or their suppliers' and sub-contractors' works.

4.3.6 Once every three years, a full re-certification assessment of QAL compliance, including an audit of the manufacturer's works, will be conducted by LR.

4.3.7 The manufacturer is to advise LR of changes to the product, processes, suppliers or sub-contractors which would affect compliance with the QAL or the Code. Any deviations from the approved plans or specifications are to be reported to LR and written approval obtained prior to dispatch of the items.

4.3.8 Where it is considered that the manufacturer no longer meets the approval requirements for the QAL, the QAL Certificate will be suspended. In these circumstances, the manufacturer will be notified in writing of LR's reasons for suspension of the scheme and the manufacturer will revert to direct survey and issue of LR certificates.

4.3.9 QAL product certificates

Where the manufacturer is approved according to the QAL, they will be entitled to issue 'QAL product certificates'. These certificates are to clearly detail the product being certified and are to be validated by an authorised representative of the manufacturer. They are to bear the QAL mark, QAL approval number and the following statements 'We hereby certify that the product has been made by an approved process and satisfactorily tested in accordance with the [insert relevant standard or regulations e.g. Rules of Lloyd's Register]' and 'This certificate is issued under the arrangements authorised by Lloyd's Register [operating entity, e.g. EMEA] in accordance with the requirements of the Quality Assurance Scheme for components of lifting appliances and scheme number QAL'.

The certificate format will have to be approved by LR. Copies of all certificates will have to be supplied to LR.

4.4 Acceptance of purchased materials, components and equipment

4.4.1 The manufacturer is to establish and maintain procedures and controls to ensure compliance with LR's requirements for certification of products from its suppliers. The manufacturer is to ensure that purchased products that are required to be certified are in accordance with [Ch 1, 1.6 Materials and fabrication](#) and [Ch 11 Materials and Fabrication](#) of the Code.

4.4.2 The aspects of design, survey and testing of the components, as listed in [Ch 1, 4.1 General 4.1.2](#), are required to comply with the requirements of the relevant Chapters of the Code.

4.4.3 For each product under the QAL it is required to consider whether the lifting appliance, such product will be supplied, is itself subject to certification or classification. The requirements for certification or classification also apply to the product under the QAL. For certification, reference is made to the requirements of the relevant product type related Chapters of the Code as well as [Ch 1, 1.2 Certification](#), [Ch 10 Electrotechnical Systems](#), [Ch 11 Materials and Fabrication](#), [Ch 12 Testing, Marking and Surveys](#), [Ch 13, 2 Certification procedure](#) and [Ch 13, Table 13.2.1 Minimum requirements for the certification of lifting appliances](#). For classification, reference is made to the requirements of the relevant product type related Chapters of the Code as well as [Ch 1, 1.3 Classification](#), [Ch 10 Electrotechnical Systems](#), [Ch 11 Materials and Fabrication](#), [Ch 12 Testing, Marking and Surveys](#), [Ch 13, 3 Classification procedure](#) and [Ch 13, Table 13.3.1 Minimum requirements for the classification of lifting appliances](#).

Chapter 12

Testing, Marking and Surveys

■ Section 1 Testing

1.3 Steel wire rope

1.3.6 Terminal connections, where used, are to be of a type acceptable to LR and manufactured to a recognised National or International Standard. Proprietary terminal connects not manufactured to a recognised National or International Standard will be specially considered.

Initial tests are to be carried out on various sizes of connections to show that the strength of the completed termination is not less than the following percentage of minimum breaking load of the original wire rope:

(a) For metal and resin sockets, ferrules and ferrule-securing and swage sockets:

- 95 per cent for ropes up to 50 mm diameter; or
- 90 per cent for ropes exceeding 50 mm diameter.

~~of the breaking load of the original wire rope.~~

(b) For wedge sockets:

- 80 per cent.

After completion, each terminal connection is to be proof tested to twice the SWL on the rope. However, for larger terminations where the safety factor on the rope is between 3,0 and 4,0, testing of the termination is not to exceed 50 per cent of the minimum breaking load of the rope.

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